

Approved For Release 2001/07/27 : CIA-RDP81B00878R001400100004-7

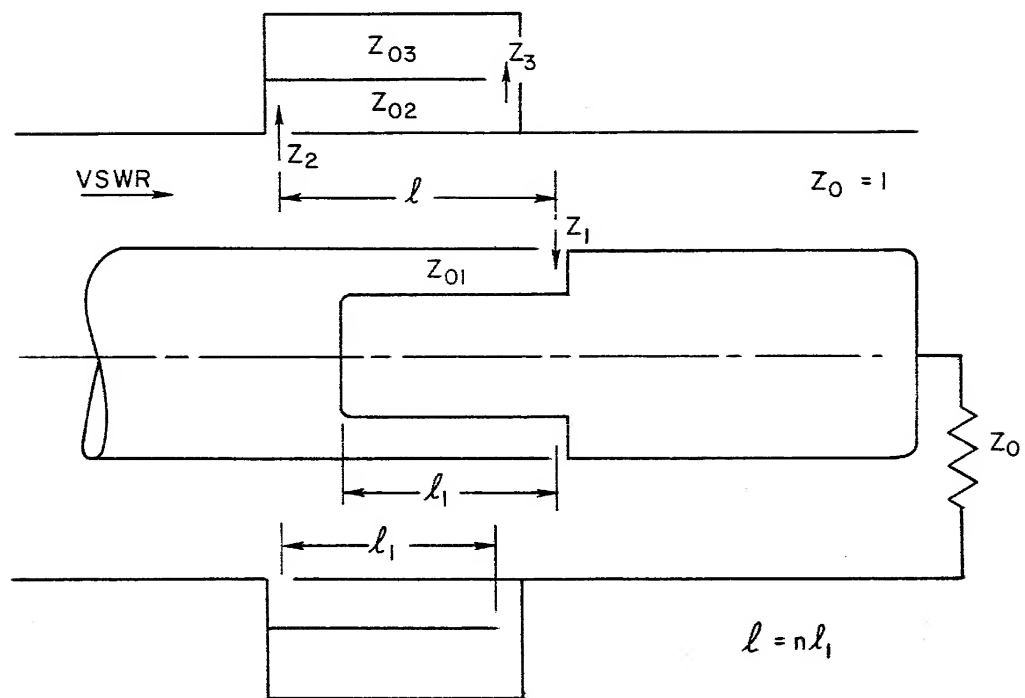


FIGURE 1 - Coaxial Transmission Line with Choke Couplings Used as a Rotary Joint

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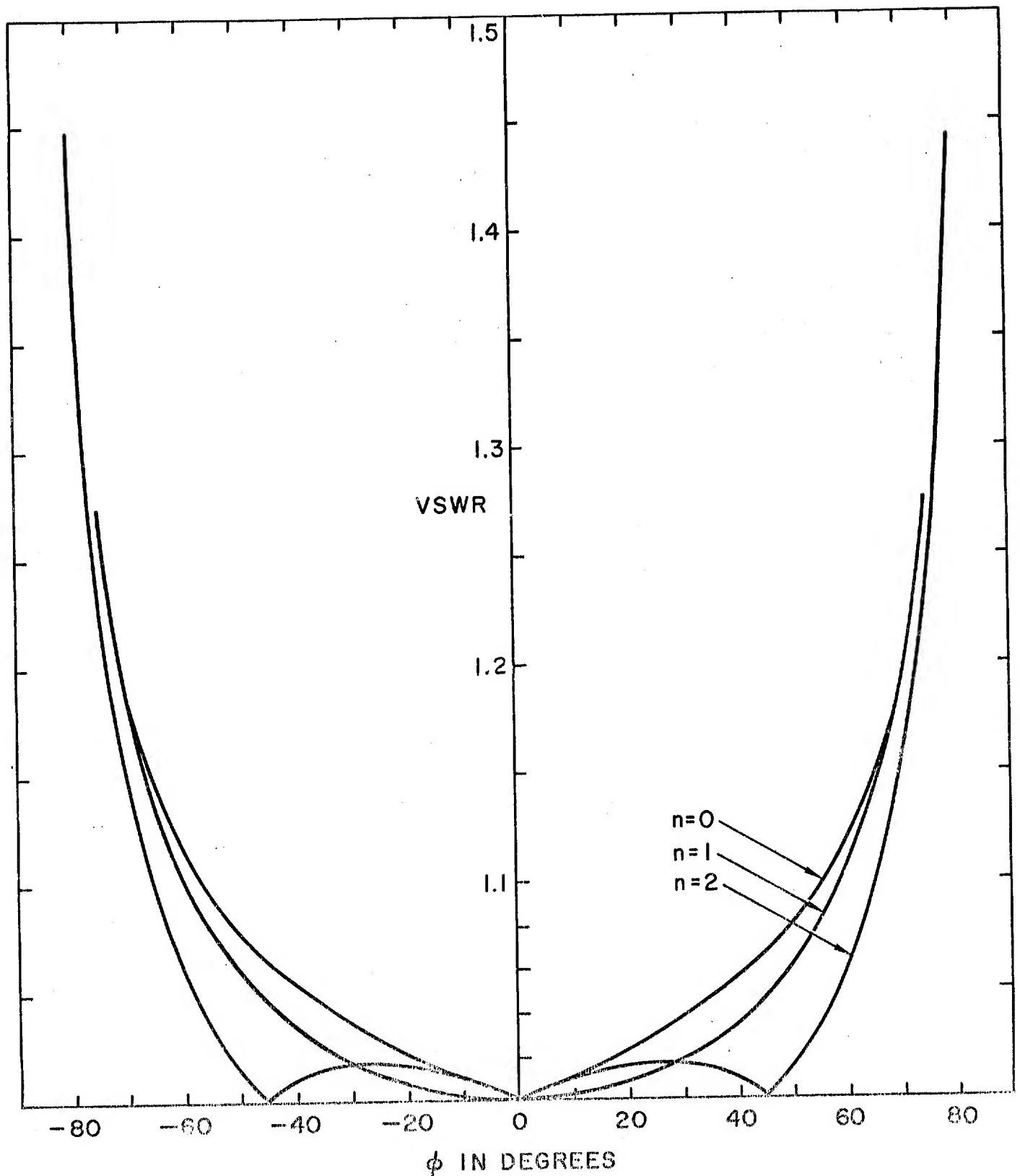


FIGURE 2 - Input VSWR to Coaxial Transmission Line with Choke Couplings for Various Values of n . Choke Impedance, $Z_{o1} = .0324$ (Normalized to Unity)

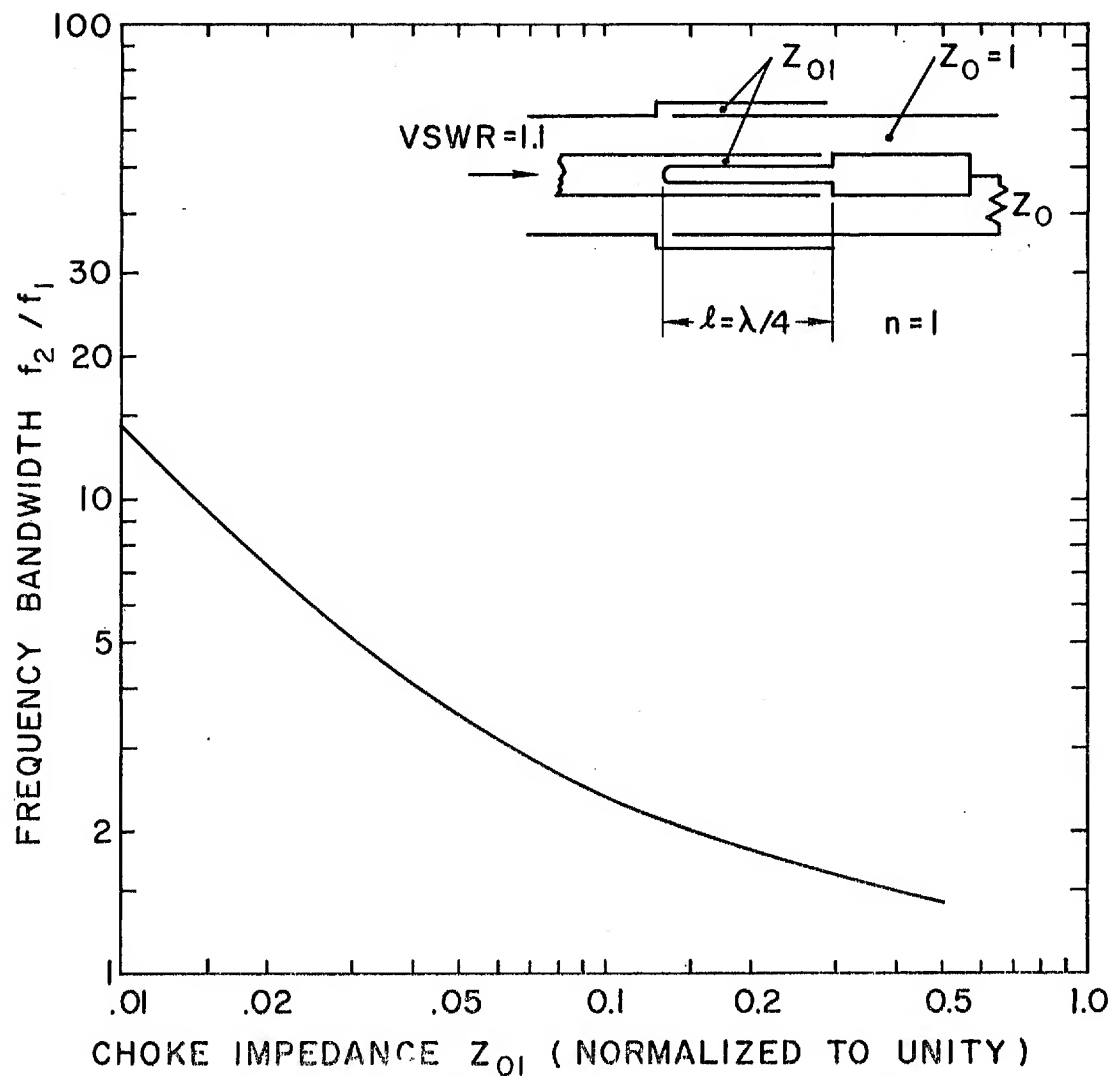
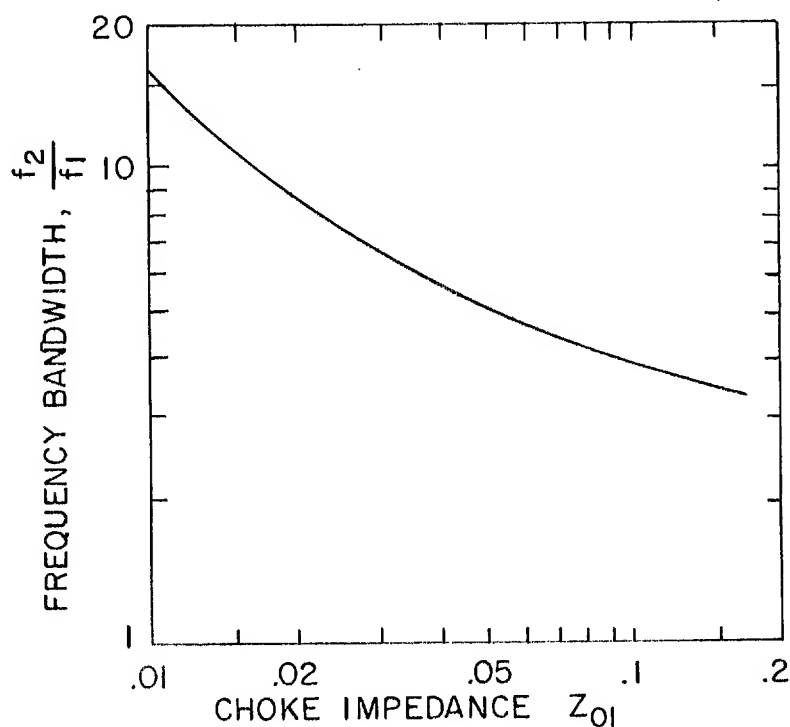
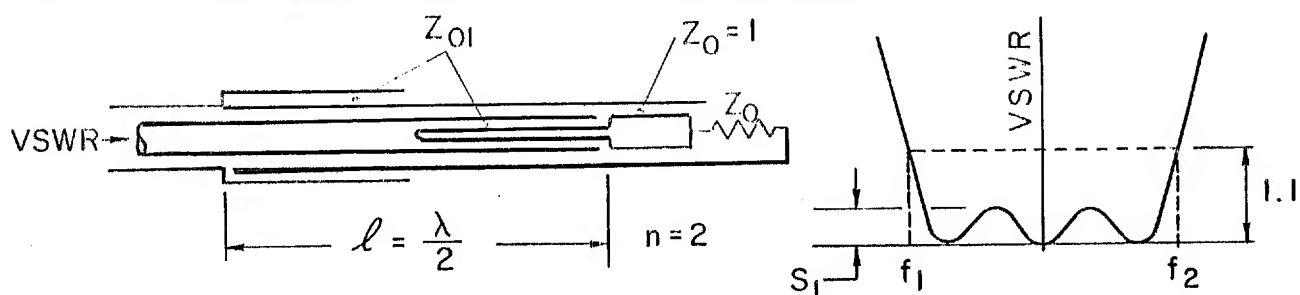
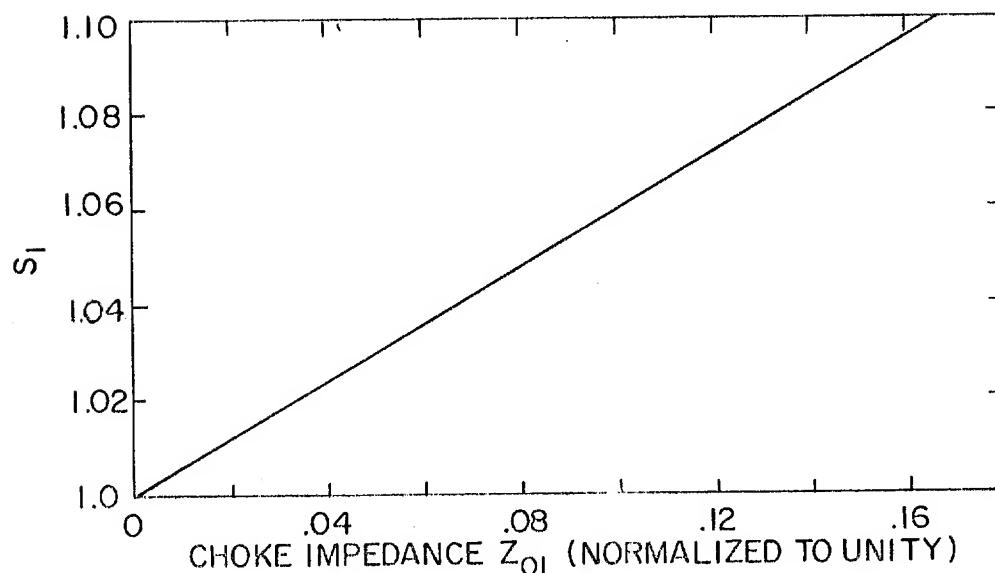


FIGURE 3 - Frequency Bandwidth Curve of Coaxial Transmission Line with Choke Couplings When Chokes are Spaced $\lambda/4$ at the Center Frequency. Bandwidth Determined by the Transmission Line VSWR of 1.1:1



(a)



(b)

FIGURE 4 - Response Curves for Coaxial Transmission Line With Choke Couplings When Chokes are Spaced $\lambda/2$ Apart at the Center Frequency. (a) Frequency Bandwidth Determined by the Transmission Line VSWR of 1.1:1.1.

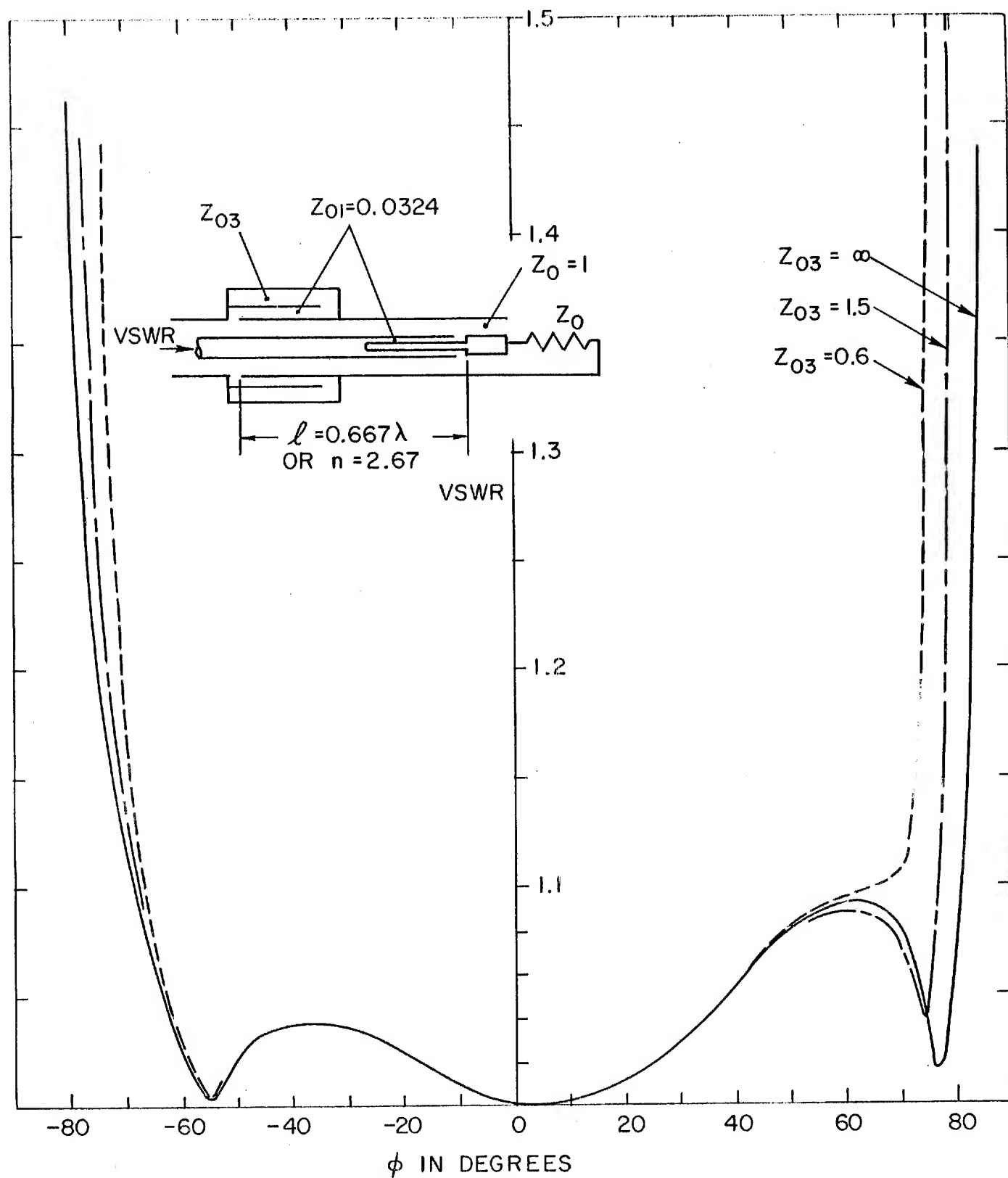
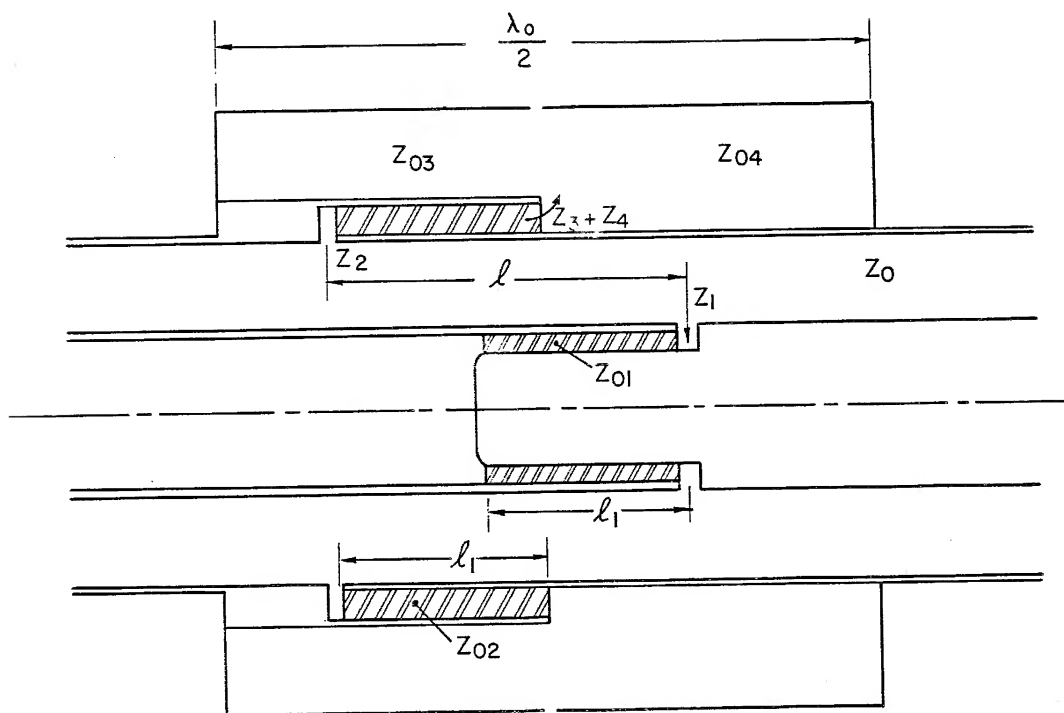


FIGURE 5 - Input VSWR Curve of Coaxial Transmission Line With Choke Couplings When Chokes are Spaced 0.677λ Apart for $Z_{01} = 0.0324$ (Normalized to Unity)

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TEFLON DIELECTRIC, ϵ

$$l_1 = \frac{\lambda_{air}}{4\sqrt{\epsilon}}$$

FIGURE 4 Feedline and Coaxial Rotary Joint or dc Isolation Unit Design Using Choke Couplings

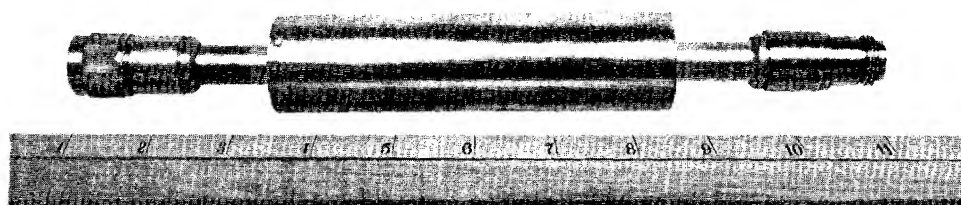


FIGURE 7 - DC Isolation Unit Built for 50 mc to 900 mc Operation
(Insertion Loss Less Than 0.5 db) Using The Choke
Coupling Design Described. (Courtesy of Ramo-
Wooldridge